Technical Consultant's Report on the Organ of
St. Paul's Anglican Church,
St-Paul-d'Abbottsford

Date of visit: February 3, 2002

Builder: unknown; likely of English origin

Date of instrument: probably mid 19th c.; organ was purchased by the church in 1873

This unusual instrument contains 7 ranks of pipes and a harmonium with approximately 10 sets of pressure-driven free-reeds. It is housed in a case with no display pipes but rather an oval grill-work with decorative figures and the letters M A clearly visible. The console is closed by pushing the lower manual in and lifting up the cover underneath.

The stoplist is as follows:

Great Organ

Open Diapason	8	(wooden bass, original tuning slides - see photo)
Dulciana	8	(common bass with Stpd. Diap)
Stopped Diapason Bass	8	(wood - species undetermined)
Rohr Flute	8	(soldered chimneys, tuned with ears)
Principal	4	(with original tuning slides)
Flute	4	(conical at the top, stopped with cork,tuned with ears)
Piccolo	2	(a principal stop, marked 15th on pipes, cut dead length)

Harmonium stops (indicated with the letter "E")

Cornopean	8	
Horn	8	
Tubal (sic)	8	
Tremulant	(presumably for the harmonium section only)	

Swell Organ (all stops within the harmonium section)

Clarion (A)	4
Basson (B)	8
Violoncello (C)	8
Serpent (D)	16
Flageolet (A)	4
Clarionet (B)	8
Viola (C)	8
Saxe Horn (D)	16

Great and Swell
Swell and Pedals
Great and Pedals

Manual Compass 56 notes CC - cl
Pedal compass two octaves

Pipework is common metal unless otherwise indicated

Scales are quite narrow: it would appear this instrument was originally intended as an "orgue de salon", probably one of a series.

Playing Action

The Great key action to the pipe chest is of the "sticker" type, with a small roller board placed just above the swell keyboard. This action is unusually light and responsive. A coupler mechanism communicates the Great action to the harmonium pallets, but this has been disconnected.

The Swell action communicates to the harmonium through balanced levers, also disconnected.

The Pedal has no indpendent stops, only two pull-downs to couple with Swell and Great.

The pipe chest is of excellent workmanship; it was not possible to view the harmonium mechanism on this visit since it would require extensive dismantling of the case.

Windsupply

The pressure appears to be around 2.5 inches, perhaps as much as 3 given the size of the toe-holes. Present pressure is clearly not correct.

Wind to both harmonium and pipe chests is provided by one reservoir which occupies the full length and width of the case. Two pumps are located under this reservoir and the pump handle is located behind the organ case. The latter was re-installed after the electric blower was added. The blower is located in a nearby room.

Present condition of the organ

1. Mechanical systems

The reservoir has been re-leathered although the quality of this work leaves much to be desired. As a result, several joints are leaking.

The Great action has been patched and mended many times, but is still functional. The harmonium action for both keyboards has decayed considerably, and has probably not functioned since the organ was moved in 1873.

The pipe chest appears to be in good condition, although there seems to be some slight bowing in the centre due to age.
No leaks between channels were apparent, nor were there any signs of water damage which could cause cracks in the toe board.

The wind supply is furnished by a small but adequate blower which appears to be in good condition.. The regulation of wind volume (curtain valve) does not appear to be functioning.

2. Pipework

The pipework is in remarkably good condition given the age of this instrument. The usual damage has been done to the tops of pipes cut dead-length, but this is not substantial.

As mentioned earlier, it was not possible to gain access to the harmonium division on this visit.

Recommendations

The organ at St Paul's is unique in Québec. The combination harmonium and pipe organ is unique in itself, but the pipework is particularly well-made and finely scaled. Even in its present state, the sound is unusually sweet and seductive.

Because the harmonium is under positive pressure, unlike the typical American reed organ which operates under negative pressure, the sound is much different: more robust with considerably more character. It is therefore important not to neglect this division so that the instrument will be heard in it's entirety.

1. Mechanical

The organ must be completely dismantled and cleaned. Pipe and reed chests examined for any cracks and other damage, and repaired as necessary.

The pipe chest action will require several new trackers. New leathers, leather nuts and valve seats will need to be replaced due to decay of the original leather. All perishable parts of the keyboards should be replaced and the keyboards adjusted. Special attention will be required in restoring the harmonium section since there are several complex coupler and stop action mechanisms which have not been in operation for many years.

The reservoir should be re-leathered and curtain valve restored and re-adjusted. The pumps also should be re-leathered

The case has opened slightly on the sides and should be re-enforced; this is most noticeable at the front where there are sections of the case which are regularly removed for maintenance.

2. Tonal

As mentioned earlier, the pipework is in relatively good condition. However there are several problems which will require attention:

1. The open flue pipes are equipped with loosely-fitted slides for tuning. These slides are original, and will need to be adjusted to fit more snugly, or otherwise removed and the pipes adjusted and cut dead length. Given the problems these loose slides create for tuning, the latter option may be desirable.

2. The Flute 4 pipes are stopped with small corks - these should be examined and perhaps replaced.

3. Several ears are missing on both flute stops

4. Damaged pipes should be repaired.

5. The harmonium division should be thoroughly cleaned, and, once the original pressure has been established, tuned and regulated. This will then dictate the pitch of the organ.

All piperacks and attachments should be examined, repaired or replaced as necessary.

Conclusion

The organ at St. Paul's is one of the most interesting early instruments in Québec. Because of its particular charm and unusual configuration it will add significantly to Québec's musical patrimoine.

Christopher Jackson